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1958**

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Published monthly by Quinn Publications, Inc., 5959 Hollywood Blvd., Los Angeles 28, Calif. Second-class mail privileges authorized at Los Angeles, California under the Act of March 3, 1897. Reprinting in whole or part forbidden except by permission of the publishers. Copyright 1958 by Quinn Publications, Inc. Subscription Price: \$3.00 per year throughout the world. Single copy 25 cents. Eastern Advertising: 17 East 48th St., N. Y. C. Detroit Advertising: 524 Book Bldg., Detroit 26, Mich. Midwest Advertising: 360 N. Michigan Ave., Chicago 1, Ill.

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Readership participation projects are key copy with R&C. Model Car and Design contests, the Dream Truck — built to readers' specifications, and the current favorite of you who browse these pages — the 'Bird. Budding stylists and interested parties from all parts of the nation and a few foreign lands have sent in ideas of how the 'Bird should look. Selecting the most popular and correlating them to the overall design theme, R&C's stylist has been kept busy revising the 'Bird Look to contemporary standards.

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the starting line



THIS, THE 60 TH consecutive edition of Rod & Custom, marks the end of our fifth year of publication. Next month will see our entry into year number six. It doesn't seem like too long ago that we perched ourselves behind this typewriter for the first time with instructions to give a whole host of readers exactly what they want in the way of a magazine. But the hobby, which was pretty much in its infancy compared to the widespread fad which it is now, has indeed progressed a long way over the years. And no longer are we alone in the small-size automotive magazine field as we were when we began. At present we are accompanied by no fewer than six erstwhile competitors (imitation, they say, is the sincerest form of flattery), but by the same token there are easily six times as many custom cars and hot rods to keep the pages filled with interesting automobiles of all shapes and sizes.

Leafing back through the initial issue, dated May of 1953, we note with some pride 14 stories listed in the table of contents. A road test of a GMC-powered '50 Chevy — a six, naturally, since GM's truck division wasn't then in the V8 business. The coupe at the time held the local draggin' record for its class of 95.84 mph. And speaking of the drags, the same issue carried news that Art Chrisman has performed the then-unheard of fete of attaining 140 mph in the standing quarter mile. (Five years later, with speeds mighty close to 170, we see that the average increase has been about 6 miles per year. Wonder if that figure can be projected into the future? If so, 1960 will see 182 mph, and '63, then, would mark 200.)

A couple of quality-built customs graced the pages of the May '53 magazine, including a cleverly restyled '51 Olds which had only just emerged from the Barris Kustom shop. It's a safe bet that today that '98 convertible could cop a trophy with little strain.

A pair of ever-lovin' flathead-powered Deuces had their share of publicity 60 issues ago, and our friend Arin Cee was preceded by a character we called Channeled Charlie.

But now, as then, Rod & Custom remains *your* magazine; yours to do with as you please. Just let us know what it is you want to see between our covers, and we'll do the rest.

Above all, we deeply appreciate the opportunity of spending the past five years in your company, and we sincerely hope that our friendship will continue five years into the future — or even more. Happy Birthday. ●

S. M.

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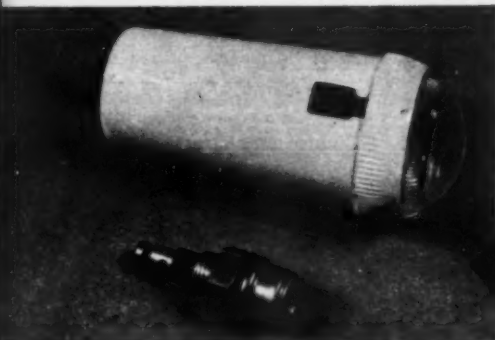
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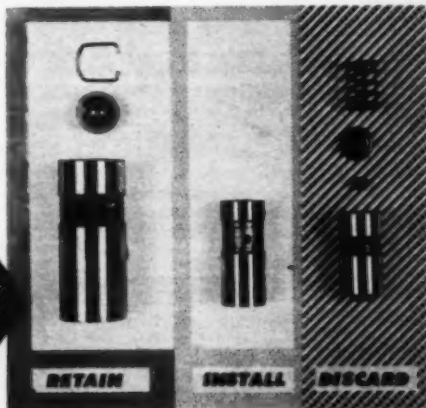


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OUR READERS WR

ABOUT THE ROADSTER

I understand that back in 1955 you ran a series of articles concerning roadster which could be built for twenty-five hundred dollars. Plans were available at that time, so I'd like to know if I could still get a set.

Michael Mills

Oakland, Calif.

• Nope. Sorry, Mike, but plans for building *The Roadster*—for a dollar a pound—have not been available for well over a year. However, plans are afoot for reprinting the drawings since this car is, with the exception of the Dream Truck, far and away the most popular magazine participation project that we've ever gotten into. For latecomers: Building *The Roadster*—For A Dollar A Pound ran for six consecutive issues, from May 1953 until October of the same year. It is our understanding that of the six issues, only two are still available from our back issue department and even these are severely limited. Only the June and September instalments remain. June discussed handling and the choice of the powerplant for the car, while in September we ran the details of body construction and installation. First come, first served on these—only two-bits each.

... STILL MORE ...

Please help! I once requested from you a set of plans for *The Roadster*. You acknowledged saying that plans were no longer available. So allow me to appeal to your readers. Anybody got an extra set? Name your own price. I have not been in this country very long, and was still trying to learn English when the plans were originally offered, which is why I missed out. Yuergen Schuessler

2017 East 35th Street
Tucson, Arizona

ROD & CUSTOM

WRITE - or wrong

PHOTO COLLECTOR

Since 1947 I have been collecting pictures of all types of rods, customs, dragsters, stock racing cars, midgets, etc. At present I have several hundred fine examples of the various types of cars noted. I even have a customized 1935 Nash reworked in Trinidad - an odd ball to be sure.

My ambition is to retain as much information on cars as possible for future generations. You know how hard it is to unearth photos of special cars from the era of the 'twenties and 'thirties - let's not let that happen again. Therefore, I'd appreciate it greatly if some of your readers would send me any car photos they might have that they could spare, along with such information as they might have on the cars.

B. R. Lovins

440 South 7th St.
Monmouth, Illinois

176 MPH

What's all this stuff you printed about a dragster turning up 176 mph in the quarter mile. (R & C for Feb. '58.) Come now, top time to date is 169 mph and even this fails to be officially recognized. Can you explain the error?

Melvin Burland

Fresno, Calif.

We're not even sure about what you're referring to, Mel, but we'll have to suppose it was our cover dragster Wisconsin's Red Wagon, which we stated had run the quarter at a speed that worked out to 22 mph per cylinder. Since a Chevy 6 powered the rod, we get a top speed of 132 mph.

Our guess is that you multiplied 22 by 8 - guessing that the car had an eight-cylinder engine. Read closer next time, Mel.

(continued on p. 64)

COMING UP NEXT MONTH

You won't want to miss seeing what Henning & Ritch do with the '40 Ford.

CHALLENGE TO THE DESIGNERS

In the May Rod & Custom



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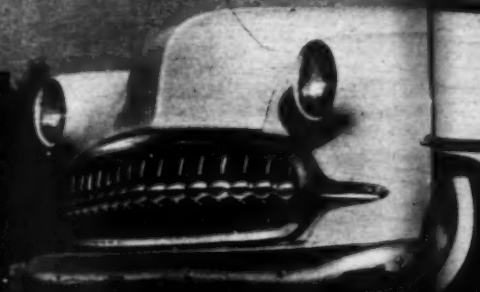
APRIL, 1958



Its UP for GO and DOWN for SHOW

BILL Hedmann's fast Chevrolet holds six quarter mile records in and around the Oregon area. Though its low look may cause a bit of head wagging, let us hasten to add that for use on the strip the Chevy is raised quite a bit. We defy anyone to lower any car further than this.

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THE UP

IN COMPLETE DEFIANCE to drag racing aspirants who love to poke fun at custom enthusiasts who lower their cars to ground-scraping levels, the owner of this white Chevy (see cover) has proven that even the lowest of the low can hold its own at the strip. Yes, though this converted '54 coupe barely manages to snake its way along even the smoothest Portland, Oregon, streets, its $\frac{1}{2}$ race 6-in-a-row powerplant has taken it up to the high eighties in a showdown with even more specialized draggin' machines.

The secret, of course, is a suspension setup that permits quick and easy raising or lowering, depending upon the use to which the car is to be put. And other than this novel feature, the car is also unique in that it isn't a hardtop — or wasn't until it underwent post-removal surgery. The result is a Chevy that looks more like a hardtop than the stock '54 hardtop did, for the side window space is nearly ten inches longer than on the stocker.

It's a trophy grabber whenever it goes — whether it's up or down. ●

UP AND DOWN

Custom

By PETER SUKALAC

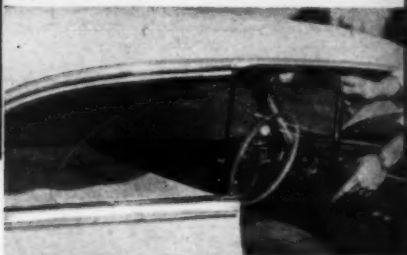


THE ^{UP} AND DOWN *Custom* continued

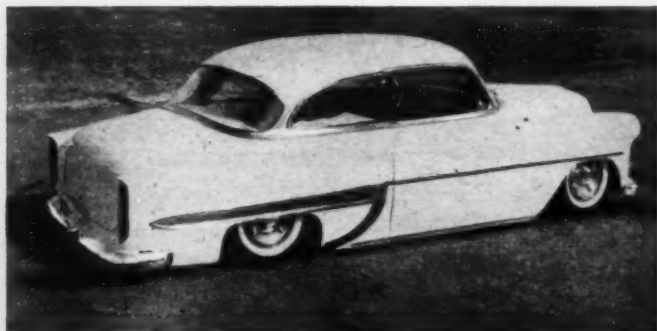


'54 Chevy headlight rims were frenched to fenders of the '53 to gain the deep-set look. The many-tooth grille is from a Corvette slightly reworked to fit within 2-door's yawning cavity.

With car converted to hardtop, quarter glass is now slid in and out of position. Loss of center post prevents raising and lowering the glass in the generally accepted method.



The 235-inch 6 is equipped with oversize intake valves, an Iskenderian cam, Thomas lifters, a Corvette intake and exhaust manifolds, a Rockford 9" clutch; power being transmitted via a '37 Packard floor shift box. Fuel from the three Carter sidedraft's is squeezed beneath a ported, polished head. Though always kept in showroom condition, the Chevy is no slouch in the go department as a good many draggin' competitors can attest.



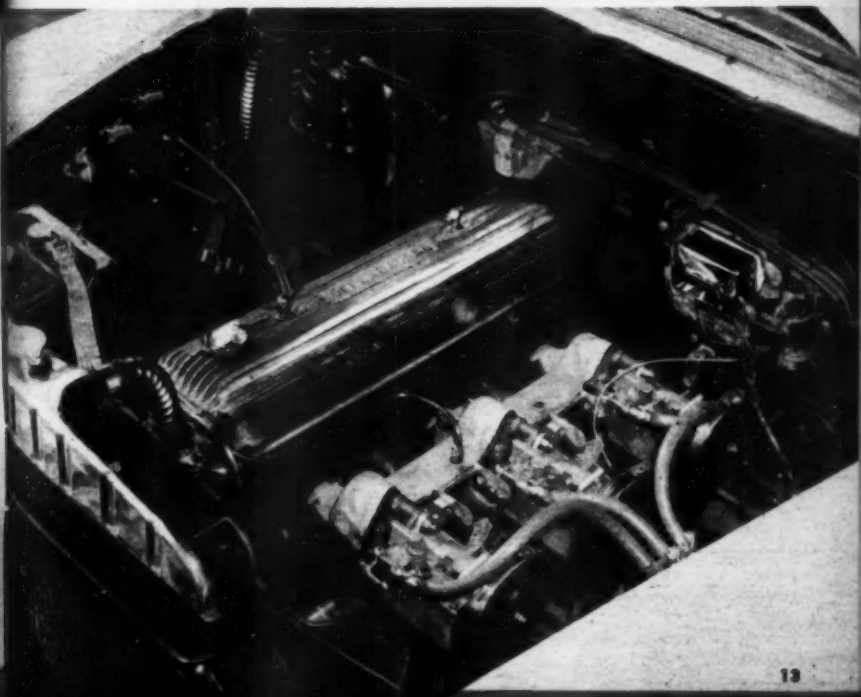
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Stark interior affords single seating only. 'Draggin' slicks are stowed as shown, are mounted before runs at the drags. Fire extinguisher and fuel pressure tank occupy passenger side. Back seat area is empty, covered with a tarp to conceal empty void.

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THE LOWDOWN ON LOWERING RING

By Jim Potter

THERE ARE right and wrong methods of lowering your car. Here is the lowdown that'll keep you from "bottoming" your car and your project, but there are limitations in everything. After all, you can't make a sled barge unless you expect to do all of your travelling over ice and snow. You've just got to have some ground clearance and the ride should be of some consideration.

The right way to lower a car equipped with leaf springs up front is to either have the springs re-arched, use a dropped axle, or turn the spring eyes. The wrong way of lowering leaf springs is to remove leaves or heat the spring ends. When leaves are removed, the spring "rate" is lowered, permitting severe bottoming or causing broken springs.

For coil spring front suspension cars, you can heat the coils to collapse to the desired height, but this method is not recommended as severe bottoming can result. A better way is to cut a loop or so from the bottom end of

the coil. This will not affect the spring rate but merely shorten it up. Rubber overload spacers can be used to prevent premature bottoming. Best method, however, is to leave the coil stock and move the spindle location upwards in relation to the suspension A-arms. Reworked spindles for various models can be purchased from specialty firms listed elsewhere. Installing spacers is still another method, but steering geometry can be seriously affected adversely.

Lowering blocks are the best answer for rear axle lowering if the car is a late design. For extreme jobs, "C'd" frames and deeper driveshaft tunnels are required. Detailed instructions are given with each of the illustrations shown on the following pages. ●



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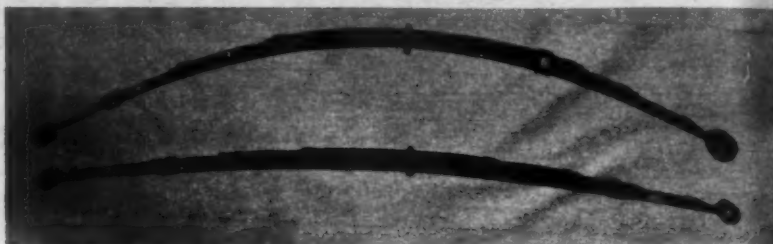
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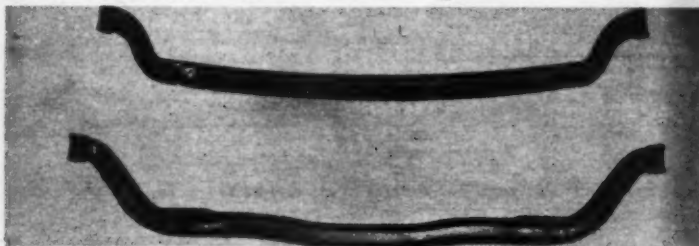
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FRONT END LOWERING



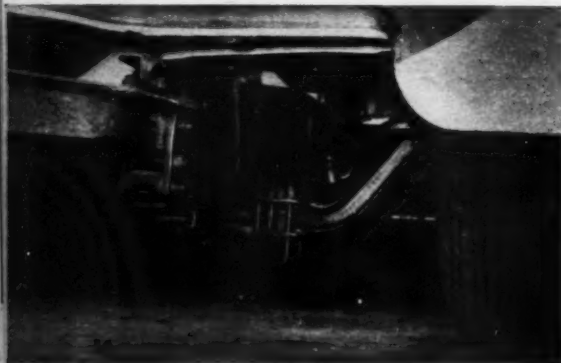
1. RE-ARCH THE SPRINGS

On the few old timers that are still around with front leaf springs, you can lower the front by re-arching the springs as shown. Amount of lowering can be controlled by degree of "flattening" done. The wrong way of lowering leaf springs is to remove leaves or heat the spring ends. When some leaves are removed, the "rate" is lowered so much as to permit "bottoming" or even brake stall springs due to the remaining leaves being overloaded. These effects apply to rear leaf springs also.



2. DROP THE AXLE

For pickups and early-model cars with a solid front axle, best way to lower front end is by the dropped axle method. Axles can be made with the desired drop and do not affect spring action. One firm specializing in this kind of equipment is the Service Center, 15729 S. Atlantic Blvd., Compton, Calif. Prices range from \$15 to \$22 on an exchange basis, \$23 to \$43 outright, depending on car and model year ordered.



3. RE-LOCATING THE SPRINGS

One of the simplest methods of lowering the front end of pickup is to re-position the front leaf springs below the axle. In this case reversing the U-bolts is all that is necessary. This of course has no effect on the spring action and the pickup should ride the same as in the past. This procedure could be applied to most pickups, from '40 Fords through '57 Fords and Chevys.



4. CUT THE COILS

On cars with coil spring front suspension, best method to lower front end is to cut a loop or so from the bottom end of the coil. Drop achieved is usually double the amount taken from the coil due to leverage of the lower A-arm. The clipped coil method, however, usually permits the front of car to bottom too soon. Rubber overload spacers can be fitted between the coils to increase the "rate" and prevent premature bottoming. Wrong method is to collapse coils by heating with a torch. This may lower the car to the desired height, but ride is adversely affected.

RE-POSITION FRONT SPINDLES

As stated before, cutting coils on "flattening" front doesn't help the ride any. Ends. What satisfactory method is to rework broken stock spindles by reworked springs at this, such as those shown. These are for '54-'56 Fords and Mercs, reworked by Lyon Engineering, 11370 Long Beach Blvd., Lynwood, Calif. You can also get similar units for other makes from Ansen Automotive, 6317 South Normandie Ave., Los Angeles. On those shown, lower part of original backing plate hinge has been retained so that steering arm can bolt to it and geometry will not be affected. By using these, you can get a two- to three-inch drop without touching the coils, thus retaining a stock ride. After lowering, realign front wheels.



SPRINGS

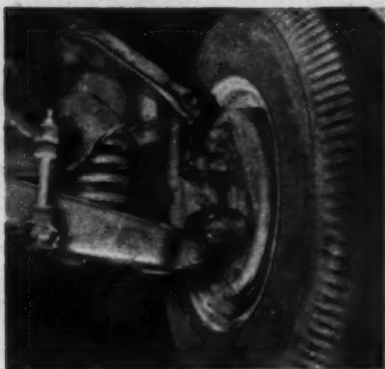
Methods of picking front lower springs in this case are all that have been used. The same as the one used in the '54-'56 Fords and Mercs.



6. INSTALL SPINDLE SPACERS

Still another method which lowers the front without changing the spring rate is to install a spacer arm between the A-arm and the bottom spring plate. This permits use of the stock coil with full or near full travel. The spacer method is usually designed to move the wheel farther up into the fender while leaving the A-arms in their stock location. Only trouble is that on the majority of cars where this method is used, the steering arm fastens to the back of the spindle and backing plate and must be moved with the spindle. This of course changes the steering geometry of the car, which must be corrected. Proper camber adjustment must be made when job is done.

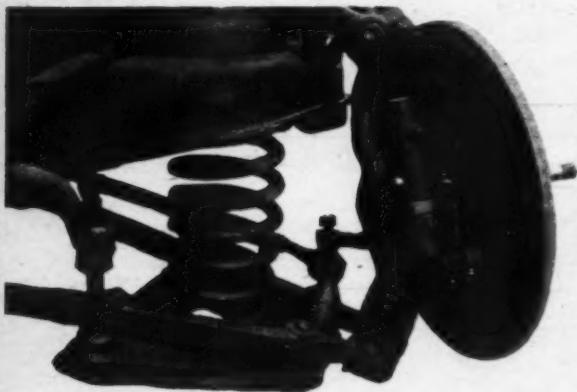
FRONT END LOWERING



Spindle support on a stock front suspension of a '49-'51 Chevy is bolted to the two lower bolts that hold the backing plate. The swinging steering linkage is geometrically matched to the A-arms.



To lower the car shown in stock form at left, the kingpin boss has been cut from the spindle support and then Heli-arcing it back to support at a three-inch higher level. Steering arms must be replaced.

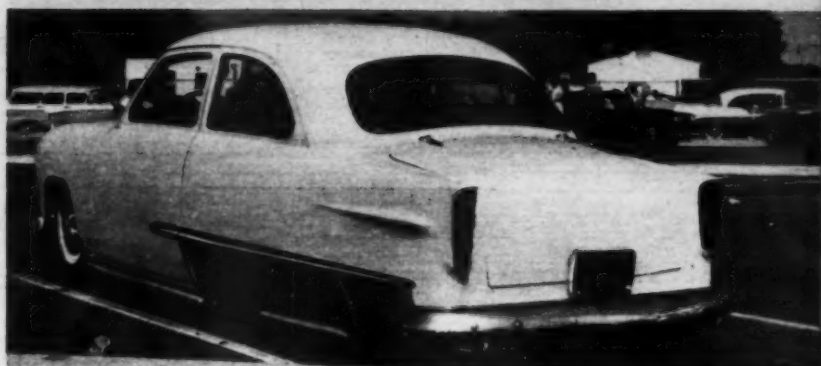


This clearly shows relationship between the reworked support kit and the stock coil spring setup. When these kits are used, on certain makes and models, dropped steering arms must be installed to insure correct steering geometry. Cost of the kit from the Service Center Arm mentioned previously are \$10 per pair. Standard drops are two inches, but on some makes a three-inch drop can be made, depending on model.

THERE ARE certain things you should remember when you're about to embark on a front-end lowering project on your car. If you're going to do it, do it right. You owe it to yourself and to the safety of everyone in other cars on the streets and highways where you will be operating your vehicle; the point we're trying to get across is that safety should be of prime importance

to you, and the car that doesn't have good steering characteristics is a dangerous vehicle on the road. Lowering cars with independent front suspension systems requires consideration of the steering geometry to maintain correct toe-in and wheel alignment. Without it, you'll get weird handling characteristics, especially on a road with an uneven surface.

REAR END LOWERING



THE METHOD used to lower your car at the rear depends on the amount you want to drop. For small drops from one to four inches, block kits that you can get from such automotive specialists as Service Center Custom Parts & Speed Equipment, located at 15729 S. Atlantic Blvd., Los Angeles, will do a fine job. But for more severe drops, the U bolts will hang too low, often-times hitting the ground when going over rough roads or dips. In this case, de-arching the springs works well. You can get de-arched springs on an exchange basis for \$7.50 each. The Service Center has them for specific makes, years, and models. While lowering the car at the rear usually isn't

as critical as up front because of steering problems, your car's ride is affected. Usually, the more you drop the less "cushion" you can get, and therefore the rougher the ride. Another factor that creates problems is the rear-end overhang. With even mild drops, driveway inclines may give you trouble. Sometimes you can relocate exhaust pipes to a higher position to help eliminate this problem. The amount of road clearance you'll need depends somewhat on the kind of roads you'll be using; stock ground clearances range from eight down to 5½ inches. Just remember when you drop below, you're bound to hit bottom now and then.



1. INSTALL LOWERING BLOCKS

Simplest method for lowering your car at the rear axle is by installing lowering blocks. The only problem resulting from this action is that you can expect quicker bottoming of both the axle housing and the drive shaft. On cars where the rear axle housing is below the leaf springs you can get a four-inch drop by shifting the spring pad on housing and moving the axle above the springs. As a by-product of really severe rear-end lowering, you will have to provide a deeper driveshaft tunnel or the frame will have to be "C'd." If the car has a cross leaf rear spring, turned eyes, re-arched spring or long shackles can be used. An anti- sway bar should be installed when using long shackles.

REAR END LOWERING continued



2. CUT REAR CROSSMEMBER

The frame on this custom has been cut and rewelded in a higher position. By doing this, the springs can be retained in their stock angle of arch, thus maintaining also a stock ride. You'll notice in this particular car that the inside rear wheel well has been sectioned, which will reduce the amount of tire clearance, limiting the up and down movement of the rear wheel. As you can see, there are many problems connected with lowering an automobile, and you should consider all of them before tackling the job to be certain you're going to end up with the kind of custom that you really want.



3. "C" THE FRAME

For those of you not familiar with the term, "C-ing" the frame means to cut a radius in the frame rails to clear the rear axle, thus lowering the body. This is always necessary if you're planning a severe drop. Shown are two "C-ing" kits offered by the Service Center firm, and a custom "C-ing" job done by an individual to illustrate the ultimate in this "C-ing" process. The upper kit allows a three-inch lowering job, selling for \$9 a pair, while the center kit is for five-inch lowering, selling for \$15 per pair. When "C-ing" the frame, additional problems present themselves. With the body dropped so far usually a new driveshaft tunnel will have to be made to obtain clearance with the floor dropped, and the wheel openings in the body, for really severe lowering, must be enlarged to fit.



4. DEEPEN DRIVESHAFT TUNNEL

Major floor modifications are necessary in extreme frame and body lowering. Areas where the floor may rub against the rear axle and wheels must be cut out and "lifted" to provide enough clearance. The driveshaft tunnel must be "deepened," and clearance for the rear axle must be provided. All this requires some skill with the torch and welding equipment. If you don't have the tools or the aptitude, we suggest taking your project to a good body man; he can do it probably in half the time, but don't expect it to be cheap at today's labor prices. Extreme lowering cost is high.

ROD & CUSTOM

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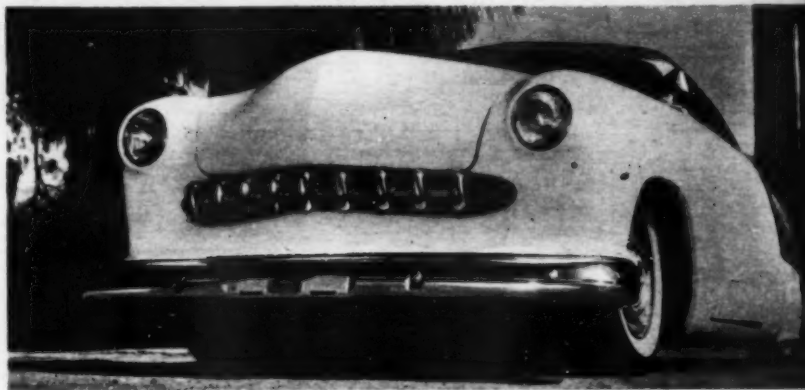
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The lowered look can be accomplished by other methods than those described on the preceding pages. Jim Butler of Inglewood has done an excellent job on this radically restyled '55 Studebaker coupe. By filling in the rear wheel openings, adding a cupped horizontal metal "plate" below the extended rear fenders, and installing new side trim, the car looks lower, but really isn't.



Front-end suspension system on this custom is practically draggin' the ground, which of course is going to give the owner-builder plenty of problems wherever he goes. Even the slightest road irregularities will seem like mountains. Naturally, there's a moral to be learned here: If it's a ground-hugging automobile you want, follow the instructions on the preceding pages for your type of suspension system for lowering — or buy your car a set of skis. Pickup below has been lowered up front but the rear remains stock — result: a rake.

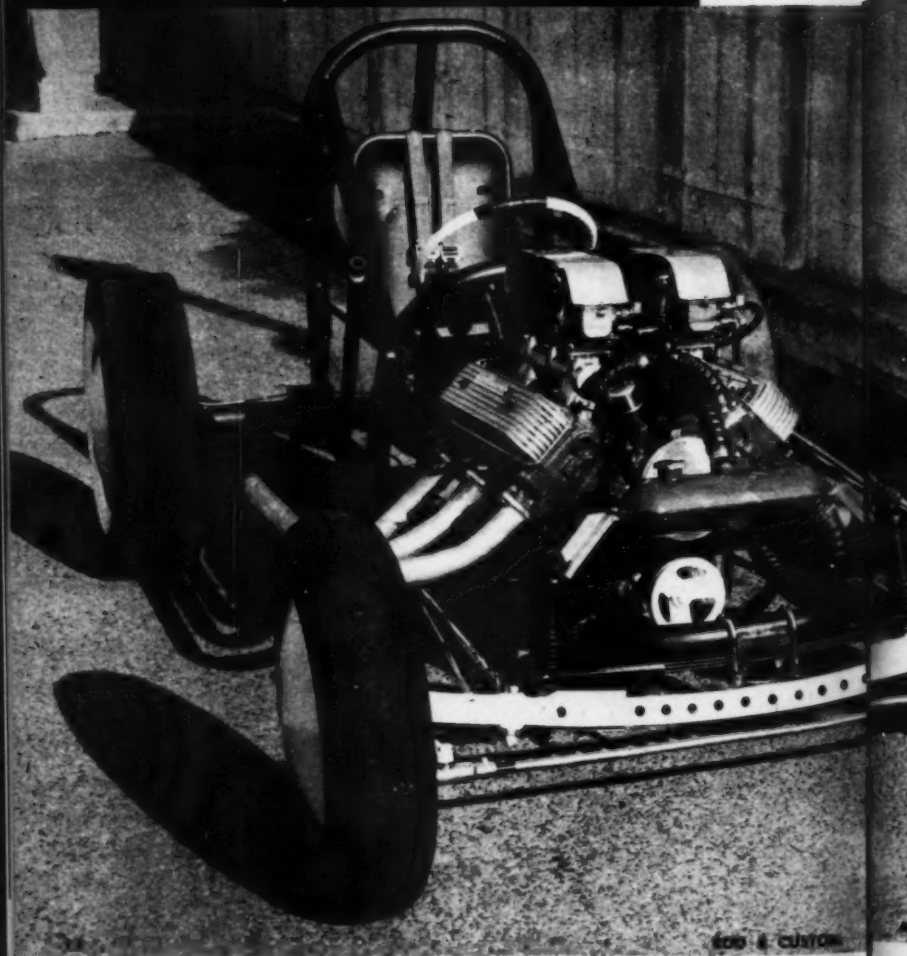


APRIL 1958

SHORT STUFF

82 inches of GO!

By GEORGE BURNLEY



800 & custom



THE KNIGHT'S Auto Club of California had, since the club's inception in 1954, wanted to build a club-project dragster. Funds being somewhat on the short side, despite the 33 generous members who put what they could into the community pot, they had only the engine completed after several years' work. So member Gary Hartsock who had been slaving away on a dragster of his own, decided to let the club's engine provide the push he needed. No sooner said than done, and "Short Stuff" was the result.

Two-inch i.d. tubing is the basis of the chassis, with a combination of Ford and Cadillac components providing the underpinnings. Carefully working out the frame design beforehand, Gary has put together the lightest, yet strongest, chassis that could be devised using the material he had at hand. A sturdy roll bar, diagonally braced, forms the aft end of the frame providing both severe strength and plenty of safety.

The Cadillac rear end is bolted directly to the frame, in complete deference to suspension merits, while the Ford front axle rebounds against a 3-leaf spring. Wheels aft are Buick, with 8.20 x 15 Bruce slicks, while up front spin Merc units with lightweight 5.00 x 15's. As on most dragsters, only 2-wheel stopping units are used for retardation.

The club-built engine is a '50 Olds with 345 inches. Within a 4" bore slip JE pistons moved by ignited fuel fired by a Vertex mag. Four Stromberg 97's are mounted above a Crower U-fab manifold. '56 heads with a comp. ratio of 11:1 are used while the cam is an Engle #116. Unbelievable as it may sound to those who have built similar chassis, Gary's outlay for his short-coupled machine was only \$650.00—excluding the powerplant, of course.

As of this writing the mighty machine has not yet been unleashed, but it's bound to wind up a real trophy grabber. ●

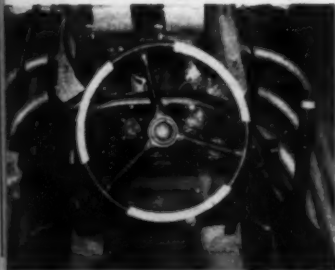
SHORT STUFF

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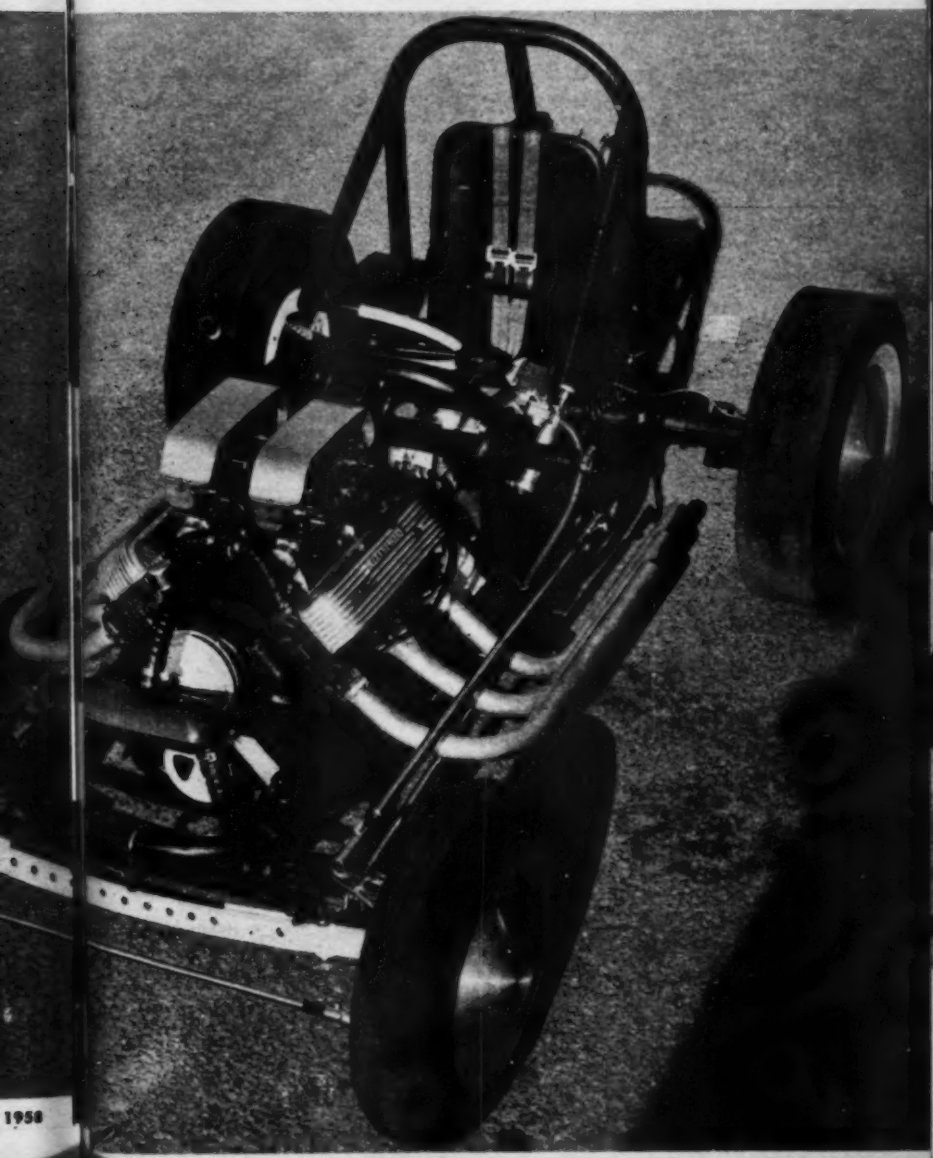


Notice anything odd about this hind-side shot of 'Short Stuff'? The rear end is Cadillac rather than the widely-used Ford unit. But even stranger than that, the transmission is an Olds HydraMatic. Hartsock built frame from chrome moly tubing.

Stark dash includes tach, water temp. gauge, oil pressure and a "panic button" (left of wheel). Transmission is controlled by direct-acting lever from left side of gear case (out of bottom photo). At time of photos, Short Stuff had not yet been timed.

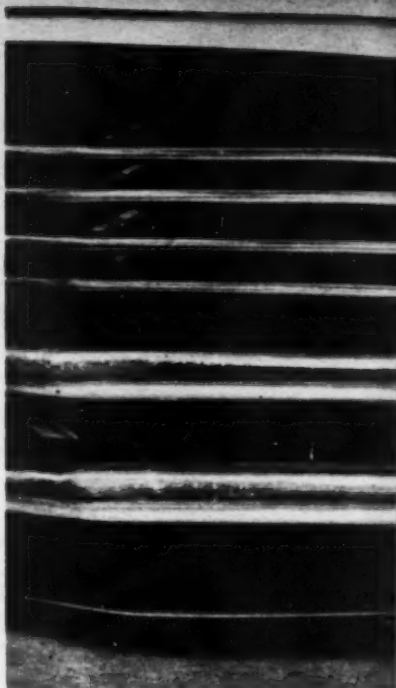


The finely-constructed chassis is used as a "proving ground" for the engine, which belongs to the Knight's auto club of Oakland, Calif. The club, in its third year, boasts 33 members, nearly all of whom drive cars with ohv engine conversions. The healthy '50 Olds engine in the dragster was a club project, all members having participated in some way in its modifications. Note frame design.



ONE OF the auto enthusiasts' longest-standing dreams has been to do chrome plating right at home without the tons of expensive equipment that are usually associated with the process. If such a way could be found it would no longer be necessary to pay the prices charged by plating shops. (Most platers do not rely on piece work, they usually have sizeable commercial accounts which keep them well supplied with work. Odd pieces to be plated are thus looked upon as a nuisance and charges are made accordingly). Too, there are many towns which do not have a quality plating shop so enthusiasts must either rely on the mails or express companies, or do without altogether.

Over the last few years many "gimmicky" substitutes for chroming have been developed, ballyhooed, then dropped since none really lived up to claims made. So the public has become accustomed to hearing of at-home plating methods, yet they keep on beating a path to the platers' doors.



Now — at last — you can do your own ...

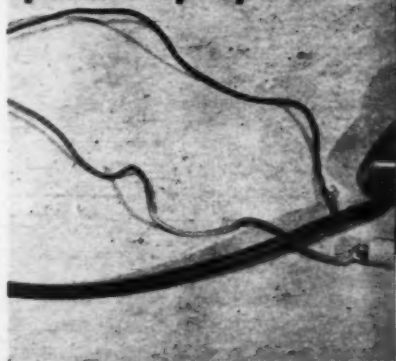
CHROME PLATING

But now a substitute for commercial chrome plating has been developed and, as will be unfolded in this exclusive shop report, it lives up to all that is claimed for it. In short, it works!

The electroplating outfit, sold under the name of SpeedPlater, not only can be used to restore scratched, worn or blistered chrome on any part of your car, but can be used to plate metals not chromed before. And a fabulous amount of equipment isn't necessary, so the kits are available at surprisingly low cost.

(continued over leaf)

special shop report





NG AT HOME



CHROME PLATING AT HOME

continued



The larger of the two SpeedPlate kits available contains quite a quantity of materials. In addition to wire leads, grinding and buffing wheels, buffing compound, there are ten 4-oz. bottles of rust removing solution, metal polish, copper and Briteplate solutions and paint stripper for removing paint from metal items not previously plated.



Here a drill press is shown with grinding wheel used to remove surface scratches and welding slog from a small foot pedal. Drill motor, bench grinder or flexible shaft tool could be used equally well for the various grinding and polishing steps to be taken during the project.

28



Copper plate solution is poured into china cup. Brush (beneath hand), connected to the battery, will be dipped into cup then drawn across surface of pedal leaving it heavily plated. Chromium adheres best to copper undercoat so it is always used when plating any metallic item.

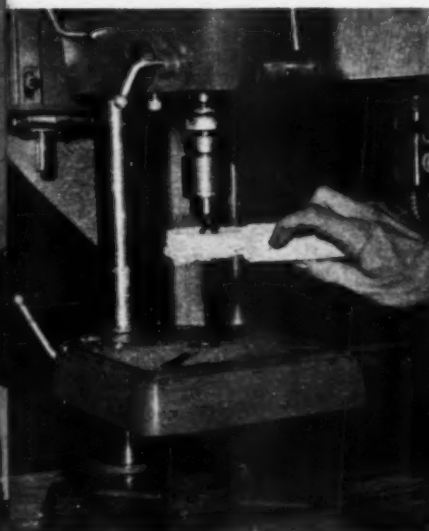
We were understandably skeptical when we first heard of SpeedPlater, having tried earlier — unsuccessfully — to use another type of plater. But, always on the search for products which would genuinely benefit rodders and customizers, we proceeded with the larger of the two kits sold by the Empire Merchandising Co., at 4 North 3rd Ave., in Mt. Vernon, New York.

The lengthy instructions received with the kit suggested to us that complications lay ahead, but after careful reading we found them to be easily understood and quite thorough. Also in the kit were ten bottles of various chemicals, four bars of buffing compound, a set of wires and clips, three buffing wheels to be used in a small hand grinder or drill motor, a rubberized grinding wheel and what resembled a paint brush but which turned out to be the key to the process. In all, we felt it was a good buy at only \$34.95 (the smaller kit, for \$13.95, has

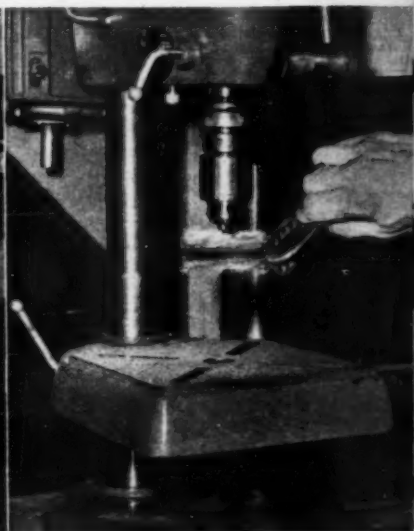
the same materials included but in lesser quantities), especially considering that it actually plates — sparkling, corrosion-resistant plating!

Besides the items included in the kit you'll need some sort of buffing tool to which the grinding and polishing wheels can be attached — a $\frac{1}{4}$ " drill motor, flexible shaft grinder, a bench grinder or drill press will do fine. And you'll need a source of electricity, the 6 or 12 volt battery in your car or — if you want to use an extra-cost transformer — you can plug into a wall outlet. We used our 12 volt battery connecting up to it with the leads provided in the kit.

The accompanying photographs show some of the steps we took in following the SpeedPlater's instructions, so we won't go into detail here, but we were so impressed with our initial results that we even tried replating a thin spot on a grille bar of our Dream (continued)



Kit-supplied buffing wheel, fitted into drill press, is covered with the special compound by holding soap-like bar against wheel as it twirls. Again, any type of fairly high-speed, rotating shop tool could be used in this step — hand polishing would take a much longer time.



Once the little pedal was copper plated, it was polished by holding it against compound-covered wheel. Copper, like surfacer paint, has a filling quality. So, once applied, it can be smoothed making invisible all the flay surface imperfections that are always present.



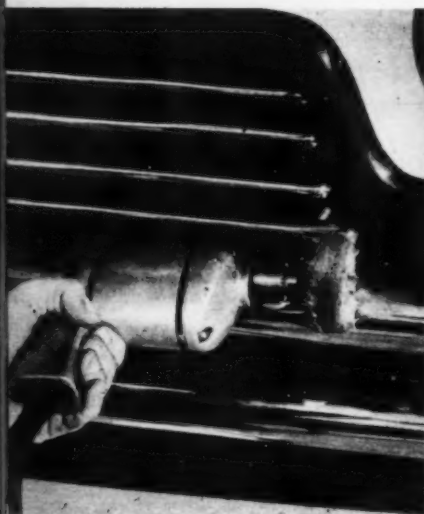
Dream Truck grille bar, near parklite, had a bare spot showing in chrome after suffering mis-handling and bad weather conditions. It was a case of bar removal, shipment to platers, or do-it-ourselves with the SpeedPlater outfit. We chose the latter for experimentation.

CHROME PLATING AT HOME

Truck — right in plain sight where it could be easily seen if the new plating didn't match the old in color or texture — or if it didn't work at all.

The plating as applied is not actually chromium, but so closely duplicates it, when applied according to instructions, that only a chemist could distinguish between the two. The finish is just as durable as chrome and needs only occasional polishing for it to retain its high lustre.

The final plating with SpeedPlater bears a little description. The last step requires but a small fraction of the total time needed for all the steps. Just as in chrome plating, the initial steps in preparing an item are the removal of rust and/or grease, polishing the



Buffing compound on wheel in drill cleaned the area and removed scaling chrome. Once stripped to bare metal around the area shown, the bar was treated just as the object was in the preceding series of photographs. The last step in using the SpeedPlater is the ...



... use of the brush which is connected to our 12 volt battery. The brush is simply drawn back and forth, leaving a coat of plating after each pass. More strokes mean a heavier coating. Time required for repairs to grille bar was less than 15 minutes once equipment was ready.

continued

bare metal to rid the surface of minute scratches, the application of copper plate, polishing the copper plating and, then, final plating. Briteplate is the trade name for the solution which, when applied, glistens like chrome.

The actual plating with Briteplate, and also with the copper plating step, is done with a *brush* which is connected to the power source forming the anode of the electrical circuit. The cathode is joined to the item to be plated with a spring clip, and forms the cathode. The brush is dipped into the solution, then drawn across the surface. Presto! What appears to be glittering chrome appears like magic. A light final polishing and rinsing completes the process.

The SpeedPlater may also be used

in applying silver, gold and rhodium. These solutions are available from the Empire Company as are replacement materials for the plating kits, and a transformer for use with house current if an auto battery is not available.

For those wishing to plate their own items right at home without having to depend upon a commercial chrome shop, we'll vouch for the SpeedPlater's doing the job for them by saying that it works exactly as described giving a lasting, durable, bright coating to most metallic objects saving both money and time over the usual sending-it-out method. It's true that the first job attempted can save more money for the operator than the kit cost. ●



Lightly polishing the area with soft cloth dipped in special metal polish brightened replated surface until it matched exactly the original, surrounding chrome. Formerly bare spot now defies even close detection. Kit contains enough material for many touch-up jobs.



Here is the repaired grille bar in Dream Truck and the materials from the kit that were used. (Drill is our own). Several hundred dollars worth of plating on your rod or custom can be accomplished using the materials available in the \$34.95 Speed plating kit.



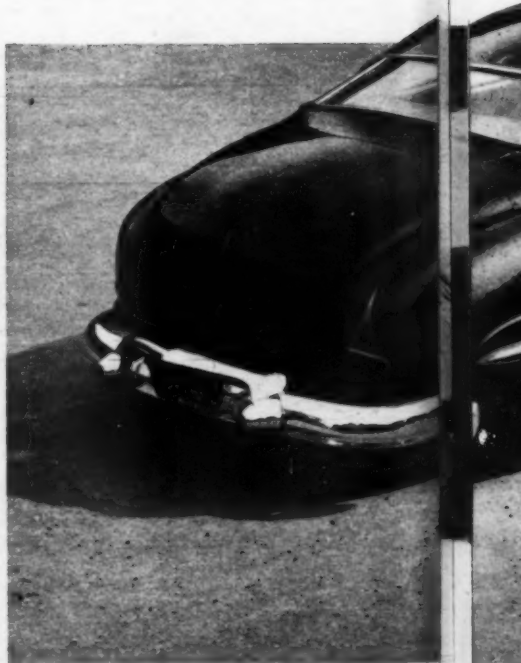
The unusual, new-idea grille was made from two '51 Kaiser bars spaced apart by ten chrome parts, each of which is filled with translucent plastic. Grille's background is chromed mesh, sometimes referred to as "expanded metal." The front bumper is void of its guards and all the holes have been filled. The headlights were frenched using the chrome-lined rims from '52 Ford.

brothers join forces in building the "new idea" custom

FEW BODYMEN would attempt to create a custom working in a lean-to with a dirt floor, but brothers Tom and Bill Sewell had little choice. The other alternative was to have the Merc hacked up by a pay-as-you-go specialist, but this they wanted no part of. (Poor grammar, but true.)

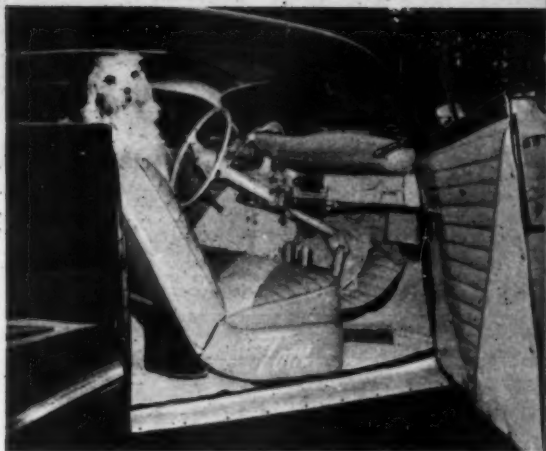
The tools and materials needed for the job were hunted down and hauled to the shack behind the family homestead. And then things began happening; the hood, doors and trunk were yanked — the glass, upholstery and engine came out; the top and door posts were cut off.

(continued over leaf)



By PETER SUKALAC

Sahara's interior is finished in gold, white and silver Naugahyde. The inner furnishings are only part of car not reworked by the brothers. Note that the dash panel has been fully padded. Once a conventional coupe, body's center post has been removed giving hardtop look. Dog does not drive car.



rod and custom
COVERage

Up Washington way they call it...

The Sahara

APRIL, 1958



The bumper guard from a '53 Kaiser, with exhausts incorporated into bullet-like ends, has been mounted on the Merc bumper.



Customizing of the Sear for this model car, was loan-to. Updewy was c

The Sahara

continued

Chrome strips and ornaments were not removed from the car just for the sake of a little hole filling. Such items as were axed were discarded because it was felt they detracted from the planned overall theme decided upon earlier. Then gradually, as the Merc's new look began to emerge, it became plain to lean-to visitors that new ideas in customizing the '49-'51 Mercurys still existed and that all the conceivable customizing treatments for these popular cars hadn't seen the light of day as earlier passers-by had darkly hinted. And we think if you'll study these photos of Washington's *Sahara* that you'll agree. ●



izing at the Sewell brothers' Mercury, involving quite a few really new ideas
a model car, was done entirely within the cramped confines of a dirt-floored
Upstairs was only work to be sent to the "outside." Brothers did all the rest.



photos by george barris



A cardboard template, representing the overall shape of the scoop-to-be, is cut out. Only your imagination can limit the shapes possible. The pattern's outline is traced on the hood — or door, or quarter panel, etc. Positioning isn't important, just so scoop on opposite side is identical.

your engine needs air — let it in like this

THE NIFTY '55 FORD pickup that we sliced into for quad headlights in the January issue, and again in February for ditto taillights, again feels the torch in an attempt to get a little more air into the engine room. Aside from their practical aspect, the small scoops shown here serve to break up the slab-sided Ford truck hood and are a natural device for either beginning or ending a flame or scallop paint treatment. The hauler shown isn't the only vehicle, though, that is susceptible to such an application. Similar scoops can be cut into any panel readily accessible from the back side; deck lids, doors, quarter panels, and so on.

But enough chit chat. You fellows are probably holding the torch in one hand and the lighter in the other, so let's get with it.



A short cut, denoting the scoop's opening, is cut in the panel with either chisel, air cutter, or tin snips (start cut in drilled hole). Metal behind the slice, and within the pattern's outline, is hammered up, and metal ahead of it is beaten down. Thus air is admitted through opening on forward motion.

APRIL, 1958

SCOOPING UP A STORM CONTINUED



The height of scoop opening totals an inch. Many light blows with body hammer are better than a few heavy ones as metal is further shaped. Such work can be accomplished without use of torch if care is taken. Stay within the marked outline to prevent buckling of the metal outside of the scoop's immediate area.



When the surface is as smooth and as free from depressions and waves as you can make it, the body grinder is brought into action to eliminate the minute hammer marks. A #24 disc is used first, then finer-grained disc substituted until surface is blemish free. Rotary file on drill motor can be used within depression.



A length of round rod is bent to match the scoop opening's curve as shown. When welded in place, the rod will give the scoop a really finished appearance by adding "thickness" to metal. Rod is tack welded, then seam carefully cleaned preparatory to leading. Be sure rod does not extend above surface; it must be flush.

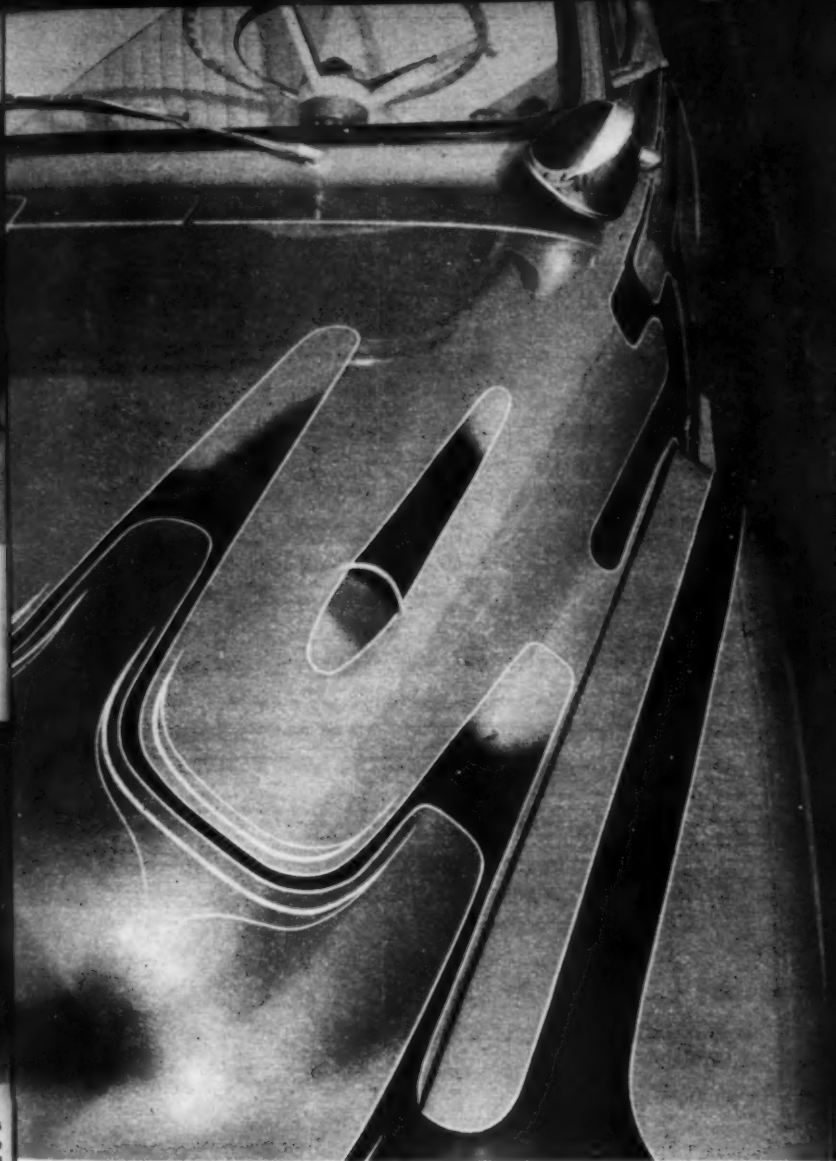


Once welded, the rod and metal around it is ground clean. Next, tinning compound will be applied, using steel wool to scrub it into all minute cracks and crevices, then lead, heated to fluidity, is paddled over. Careful filing, after area has cooled, will insure perfection. Special, small body files are available at tool shops.

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STOM



Surfacer is sprayed over bare metal, and allowed to overlap onto adjoining panel by about 2 inches, then sanded when dry. If bare metal is exposed during sanding, another coat or two of paint is needed. Repeat until no bare spots appear when area has been sanded absolutely smooth. Only then is the scoop ready for final painting. Scalloped treatment shown here lends scoop visual emphasis.

APRIL, 1958

GO KART Grand Prix

MAY CO



**the little cars provide high
excitement in their first
official event**

LITERALLY DOZENS of Go Karts turned out one day last January for the first Grand Prix event for the pint-sized cars. Held at the Eastland Shopping Center in West Covina, Calif., permission for use of the five acre area was granted by the sponsoring May Co., well-known So. Calif. department store chain. Until this day dawned, spirits of the plucky Go Kart handlers had sagged since parking lot owners seemed reluctant to allow use of their properties for Sunday racing. But with formation of the GKCA (R & C for Jan.) the way was opened for the formation of organized events; free, of course, to all desirous of spectating. And now one of the most ideal courses was at last available for top-speed Karting.

A turning, twisting course was laid out, making use of the many natural contours and hazards that the asphalt rectangle offered. (The simple, oval type of track, unfortunately popular in this country, was left for lesser handlers and $\frac{1}{4}$ midgets.)

A long uphill straightaway was selected, designed to keep top speeds a trifle below maximum, while the return downhill side of the lot was a nightmare of right and left turns which only a careful and experienced driver could successfully negotiate at anywhere near full throttle. The down run was climaxed by reversal of the course from a sweeping, reverse camber right turn into a sudden 180° left leading back along the pit straightaway. The course totalled $\frac{3}{10}$ of a mile in length with five left curves and two tricky rights.

Though official practice was slated to begin at noon, cars began exploring the course as early as 10:00 a.m. About thirty cars eventually turned out for final practice and for time trials, which got underway shortly after 1:00 o'clock.

The day's schedule called for practice, trials, and three or four races of ten laps each, interspersed with time set aside for novices to run, for kids, and for wives and girl friends to try their hands at tooling the under 100-lb. race cars. Go Karting is, first, last and always, a family affair with not a single member, save perhaps the parrot, being left out of the day's planning. Everybody participates in this new sport.

(continued)

GO KART GRAND PRIX

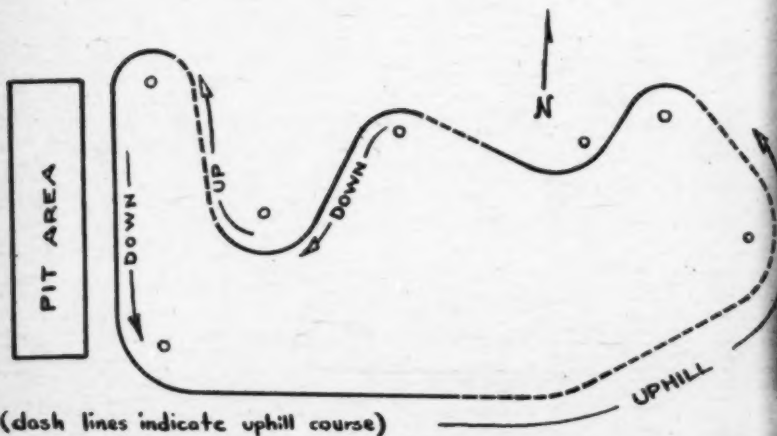
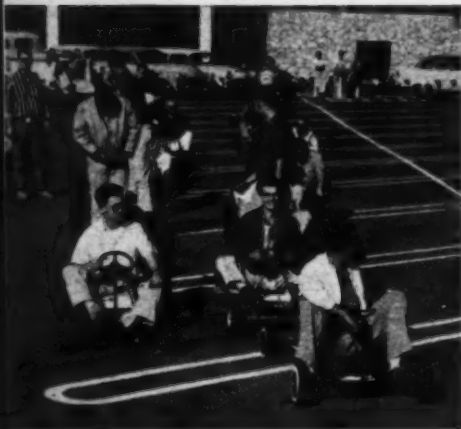
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The Go Kart Club of America now recognizes three classes of cars. Class A cars are allowed up to 5.5 cubic inch engines. Class B have from 5.5 to 11-inch mills. And the big Class C from 11.1 to 17 inches. The little West Bend #750 mower engine fulfills all requirements, two of them constitute a class machinery, and anything of 2-stroke design permitted in C Class providing it has the required displacement. Other makes of 2-cycle engines, of course, are allowed in any class, but the West Bend unit is far and away the favorite, its scant 12 lbs. producing about 2.3 hp.

Twenty Class A cars turned out for the gala event, seven dual-engined Class B machines, and a lone Class C machine; Don Bobrick's 2-cylinder, 16.5-inch drone aircraft-engined bomb, carrying the number 45.

Despite the differences in horsepower and displacement, Bobrick's qualifying time of 33 seconds was equalled by Roy Desbrow's double engined B Class rod. Top single engine car time was Pettenger's #200 at 36 seconds flat. Not bad for $\frac{3}{10}$ of a mile over the layout.

Above. Prior to first organized race for the Go Karts, drivers are briefed on rules and signals. Below. 13 little cars are about set to go.



(dash lines indicate uphill course)



With faster cars to the rear, the herd flashes past the starter with 10 laps ahead.

Conspicuous by its absence was R & C's *Hustler* (Feb. & March issues). The bright red hauler was sidelined after a spectacular, and damaging, flip-flop the previous week during an impromptu practice session.

Four races were planned for the afternoon with starting lineups inverted; i.e., faster cars to the rear. In two of the events all three classes of cars were permitted to run, but the B machinery had to run 11 laps and the C class car was started dead last, also with 11 laps to go. In each race the starters occupied the same relative positions, as determined by their qualifying times, and the outcome of each race noted for comparison. Since this

was the first in what is planned to be a bi-monthly series of events, it was hoped the spectators and competitors alike would quickly come to realize the potentials of the tiny cars. Too, drivers not having raced in close competition before would be exposed to the exacting requirements called for in racing; so though the event was official in every sense of the word, it was regarded as a more or less practice session for all concerned and no prizes or trophies were offered. Various heat races and events of varying numbers of laps were not attempted, although these and long-time endurance runs, etc., are planned for the future.

(continued)



The three lead cars have temporarily separated themselves from traffic and here roar into pit straightaway at end of first lap. Leader averaged slightly over 34 mph around turning, twisting course!

GO KART GRAND PRIX

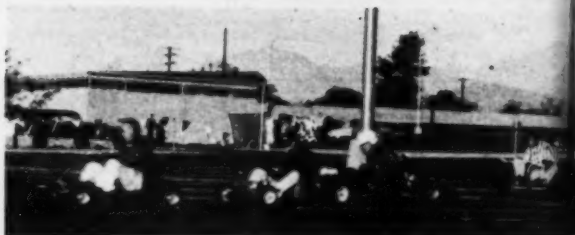
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The pack thunders through the chicane and begins the downhill slope with its array of left and right bends.

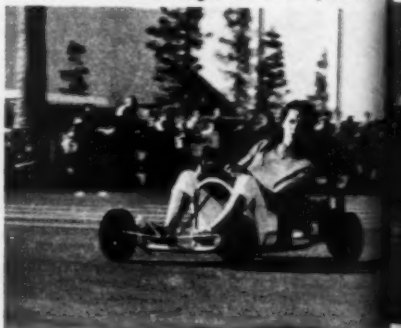
All 13 starters are visible in single photo as the group races still tightly bunched.

Spectators were drawn by the shrill whine of many engines.



Rather than attempt a recount of each of the four exciting races, we hope that the photos here will help capture for the reader some of the tenseness and sheer excitement that held hundreds of spectators positively spellbound. Let your imagination run rampant to bring in the shrill screams of the high-revving engines, the screeches of tortured tires drifting through top speed corners and the cheers of the crowds as their favorite spins out and another takes the lead. Bonneville, Indianapolis, championship drags; none could surpass this wonderful day of Go Karting. ●

Through the chicane again roars the head of the field, now being somewhat thinned as race enters eighth lap. The course is $\frac{1}{2}$ mile long, so race is 3 miles. Longer events are planned.





Around they go, and back along the short straight in front of the pits. Store in background and the GKCA sponsored the event which is to be repeated on first and third Sundays of each month around the course.



Hard to portl, around course's sharpest bend and on to victory. Car at left was winner. Note 3rd car here on 2 wheels as the driver tries in vain to cut inside center Go Kart.

A study in cornering (below, left and right) as a gal rounds a bend during the qualifying, and again as two competitors lean out for balance in close-up shot taken during race.

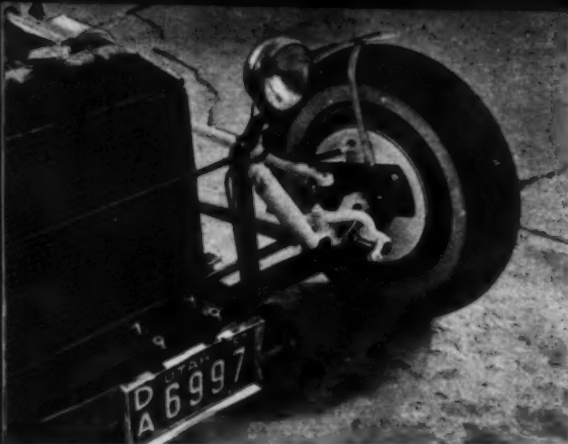
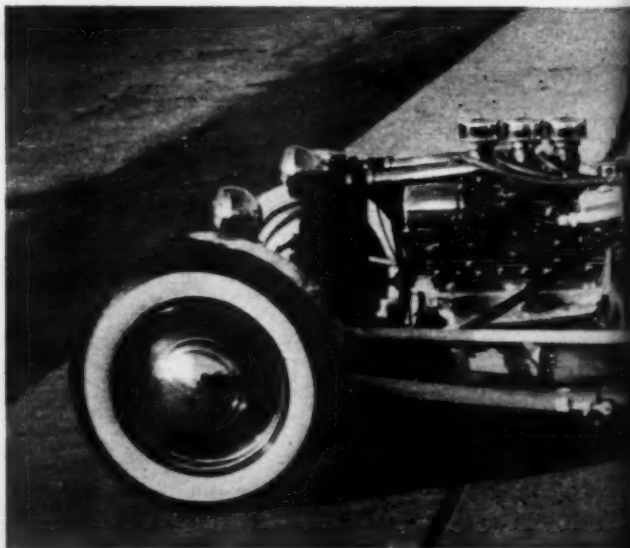


STEED'S SPIRITED

STEED

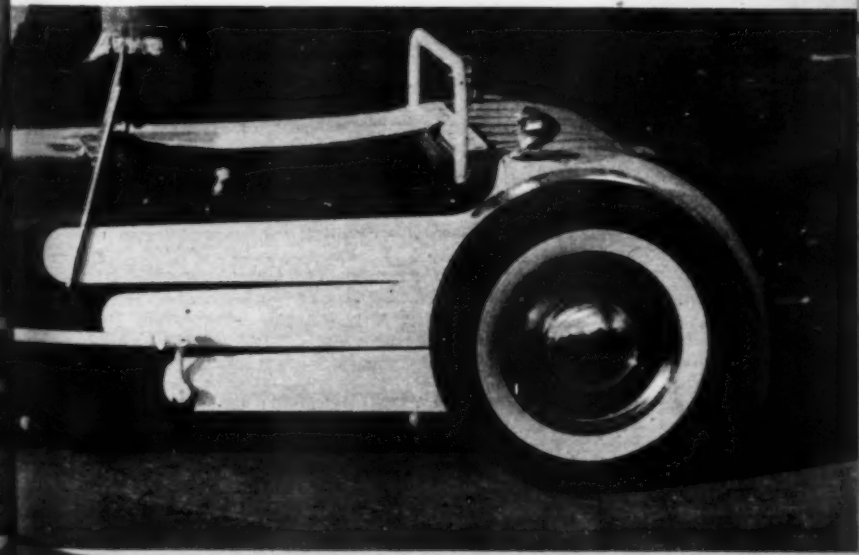
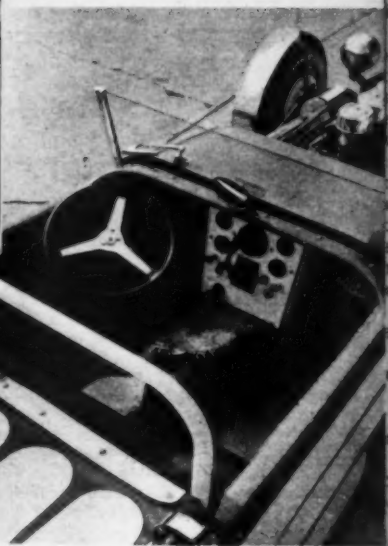
Though 19 may seem like a pretty tender age for the complete construction of a car, Chuck has been working in, on and under all types of cars for over seven years. His first project years ago was a miniature race car, followed by a home built scooter. A '50 Olds engine powers the '40 Ford coupe that shares garage space with Steed's Spirited Steed. On a homebuilt frame of 2½" dia. tubing, a long list of Ford components was hung. Front axle and spindles, brakes, wheels and rear end assembly were taken from a 1940 model. A '48 Merc supplied the engine; its 258 inches producing a conservatively estimated 160 hp. Big bore and stroke, a port and relief job, 9-1 heads, and Engle cam and a triple-carb manifold are all included in the redoubtable flathead that Charles chose to use in his steed. The streets of Utah's Ogden are well traveled by Charles in his gaily painted roadster as he toots to work and return.

WITH THE HELP of his father, Charles Steed built the roadster body of fiberglass using a wood and plaster mold. With only 4 anchor bolts, the 3-layer body is removable, for access to the car's innards, in 2 minutes. The total 1850 lb. weight of the roadster is proportioned 950 lbs. rear and 900 front so handling should be extremely good. Black and white photos do not do the Seminole Red and white paint job justice. A first place trophy was snatched at 2nd Annual Rod & Custom Review, the only show in which rod has been entered.



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BUILDING A RAIL



a step by step how-to-do-it on the construction of a car for scale model road racing

LAST MONTH in this series the secrets of building a drag course and cars were divulged. Now let us progress to the construction of a road racing machine, an entirely different project than last month's since this car must be made to handle well on curves — straightaways being few and far between on the average basement or backyard garage Grand Prix layout.

Judging from the letters inspired by the original article on electric rail racing in the October '57 Rod & Custom, the most wanted bit of information on the hobby is the building of a successful chassis — the road course itself being a matter for discussion at a later time. The car shown here has been developed over a two year period and has been simplified so that it is an ideal project for the electric rail racing beginner. It is simple for it contains no complex steering mechanism, has front wheel drive; it is ruggedly designed and contains only generally available parts.

First off, a few basic tools are required. Files, of the small hobbyist size, are a basic requirement. Also, tin

snips, needle nose pliers, diagonal pliers, soldering iron, a hand or motor driven drill with assorted bits, and a small vise will come in handy. Of course, you'll need plenty of acid core solder, too.

In the materials department, the following will be used; brass tubing, from the hobby shop, in $\frac{1}{8}$ " o.d. and $\frac{1}{32}$ " o.d. sizes. Brass brazing rod in $\frac{1}{16}$ " and $\frac{1}{32}$ " diameters. A small piece of flat brass stock, and some .004" or .005" brass shim stock for the electrical contacts. A few other miscellaneous odds and ends will be required, and these will be called out as construction progresses.

For actual construction, a prototype is needed. The car selected for this effort was the Revell Ferrari sports car kit, which is available in most hobby stores. The kit is close enough to the $\frac{1}{32}$ scale and makes an ideal basis for a sports racing model.

Measuring the plastic underpan of the kit determines the wheelbase. In this case it works out to an even three inches. A plus or minus $\frac{1}{16}$ " is considered

(continued)

RACING CHASSIS

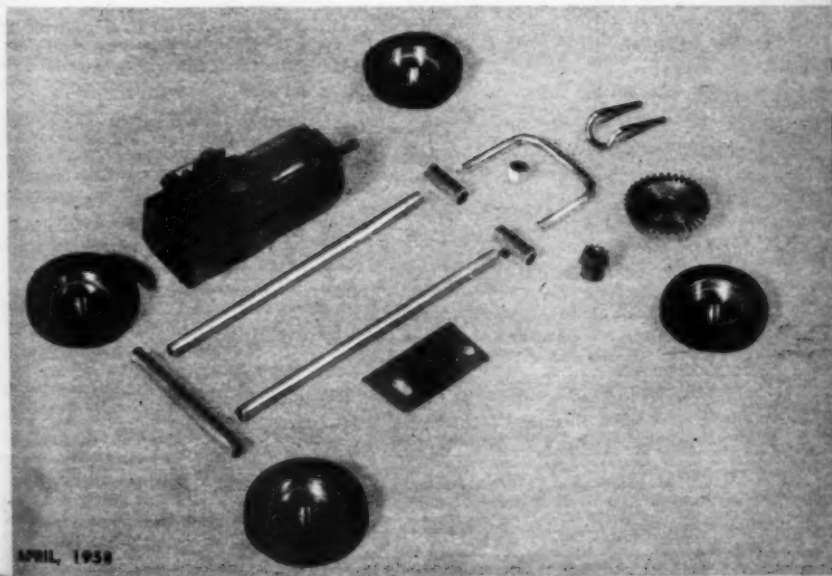
Rods and Customs in Miniature



photos by william haynes

Figure 1. These are the basic parts and hardware arranged in the approximate assembly position. Units are identified in the text.

The photographs and information used in this article were supplied through the courtesy of the M A R A; the Model Auto Racing Association, a world-wide club with headquarters at 1127 Staples Avenue in Kalamazoo, Michigan. The club was formed expressly for the purpose of building and racing electrically powered, scale model cars such as those depicted in this article, one of a regular series.



APRIL, 1958

BUILDING A RAIL RACING

ed tolerance and will not affect fitting to a great extent. With this figure in mind, the side members are cut from $\frac{1}{8}$ " tube. (A hint in cutting tubing; scribe around the tube at the measured mark with a triangular file, then "snap" the pieces apart). File the ends square with the flat file. Measure the tread width and cut a length of $\frac{5}{32}$ " tubing to fit, subtracting $\frac{1}{4}$ " from each end to allow for wheel mounting, etc. This piece will form the rear axle. The front bearings are cut from $\frac{5}{32}$ " tubing to approximately $\frac{1}{4}$ " length.

Lay the side members on a flat surface about $\frac{1}{4}$ " apart. Place the rear axle bearing at right angles at one end. A small square would be handy here to assure proper frame alignment. Flow in solder at the proper point of contact between the side rails and the cross tube. The front axle bearings can also be soldered, (see step #2) alignment right now not being extremely important.

Bend the front "carrier" from a length of $\frac{5}{32}$ " rod, and solder it on top of the front bearings allowing ample clearance for the gear. In the car shown, this distance is $\frac{1}{8}$ " of an inch. Step #3 reveals this process. A $\frac{1}{8}$ " o.d.

rod should be inserted through the drive bearings while soldering the carrier, for this will align the bearings for insertion of the axle shaft.

With the carrier placed, the rail guide is bent from $\frac{1}{16}$ " rod. Clearance should be $\frac{1}{16}$ " between the two sides of the guides. This allows a free fit over the guide rail of the track. The length of the guide rail is not critical at this point, for it will be filed for sufficient track clearance after the car is "on wheels." Solder it to the center of the carrier.

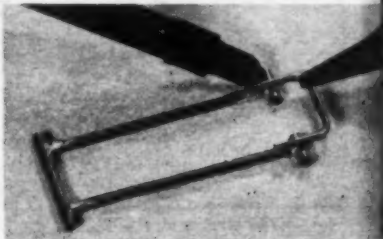


Figure 3. In this photo the front carrier, after having been bent to the shape shown, is held in needle-nose pliers while soldering joints.

A length of $\frac{5}{32}$ " tubing is cut to make the insulation holder. This part need not be over $\frac{1}{4}$ " in length. Solder it to the lefthand corner of the carrier.

Next in order is the motor mount. Contrary to "locomotive" style, the electric motor is laid on its side. The mount is cut from flat brass stock and holes drilled through it to match the motor's holes. The rear hole should be elongated to permit adjustment of the motor in relation to the center line of the gear. Mount the gear on a piece of rod inserted through the bearings. Bolt the motor to the plate and place the pinion gear on the motor shaft. Now place the motor between the frame rails and bring the gears into approximate alignment fore and aft. Mark on the side members the position of the

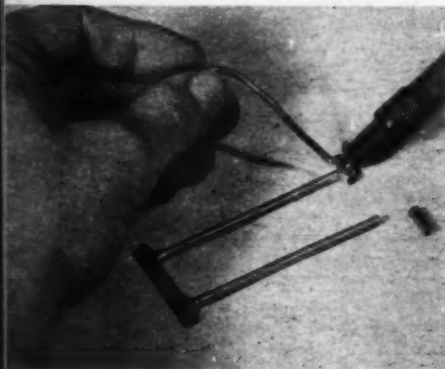


Figure 2. The rear axle, side rails of the frame, and the front axle "bearings" here are being carefully soldered into position.

CHASSIS continued

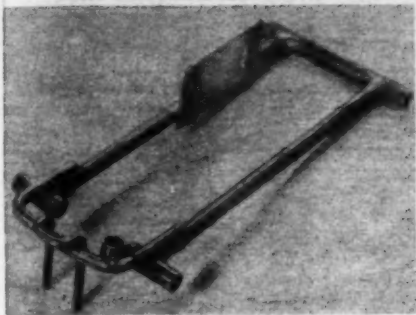
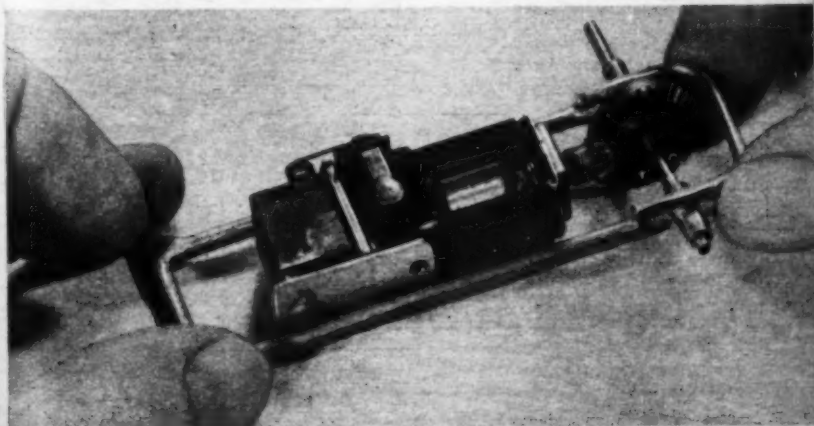


Figure 5. This is how the completed basic frame should look when assembly is concluded. The next steps will be outlined in next issue.

motor mount and solder. The final meshing of the gears will be covered in the next instalment of this article. The general procedure is shown in step #4.

To all intents and purposes we have now covered the building of the basic rail racing frame. As a point of tech-

Figure 4. A dummy axle shaft has been put through the bearings so gear may be held during positioning of the motor mount plate.



nique, the various joints should be file clean of excess solder and the entire chassis cleaned with steel wool. The completed frame appears in photo # where the various parts mentioned in this text are easily identified.

The installation of gears, motor axles, wheels and wiring will be covered next, as hinted earlier. We feel this a sufficient amount of ground has been covered in this article to keep the builder hard at work for quite some time. A third article will include fitting of the body mounts and "tuning" for peak performance. A chassis of this type is capable of running with the very best and is identical to that used by the MARA in the 1956 Southport Grand Prix. At that time a second and fourth spots were won against the best English competition.

Parts check-off list for the Ferrari sports car chassis:

1. Motor - Pittman d.c. 60
2. Gears - 3/1 ratio obtained from Precision Gear Co., Harvey, Illinois
3. Wheels - 23 mm diameter, from Scale Model and Equipment Co. Ltd., Steyning, Sussex, England.
4. Brass tubing, rod, etc., all available from most local hobby shops.
5. Body - Revell Ferrari plastic kit obtainable from hobby stores.

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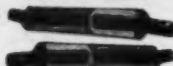
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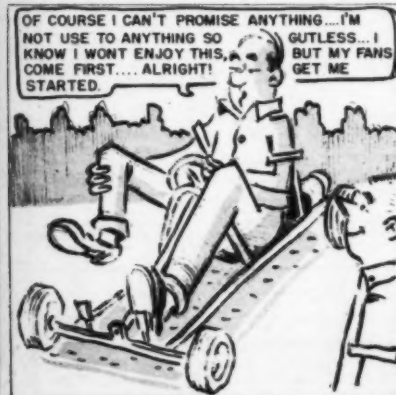
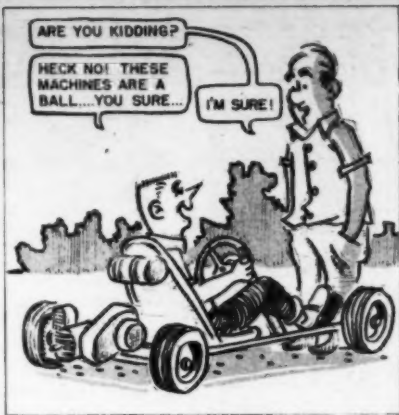
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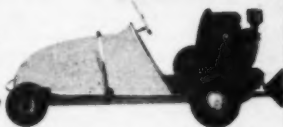


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(continued on p. 60)

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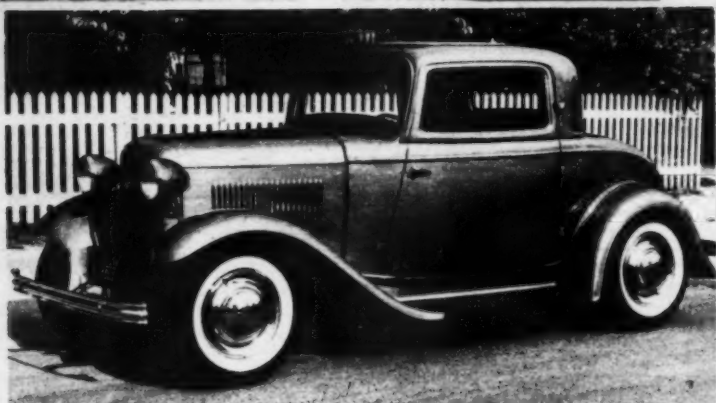
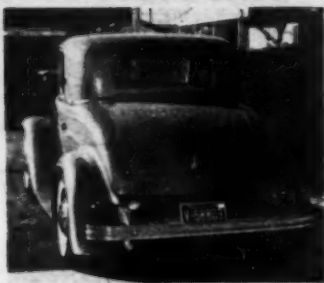
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OUT OF THE



ARIZONA

FLOYD AUCKLY started to build his car from one of the saddest looking Deuces ever. But you'd never know it now. A hopped up Olds V8 reposes now where the flathead used to, and the streets of Phoenix are often graced by the appearance of the trim lil' Highland Green 3-window.

Floyd's excuse for constructing the show winning car is this: he had previously cut up two '32's for track racing and had felt badly about it ever since. Building this car was his retribution.

Fifteen-inch wheels from a Merc hold the sprightly Deuce above the asphalt, and the rod rolls on 6.70's up front and 7.10's aft. Thus Arizona has discovered "the rake."

While various-year Fords provided most of the rod's components, there are things present from other makes. Brakes are Lincoln, steering is Hudson, transmission and overdrive are Lincoln while under the hood are all the goodies from an Olds. Famed Ernie Immerso upholstered the coupe in white and green Naugahyde done in a diamond pattern.

And thus old Out Of The 48 comes to a close — ALMOST. Yet to be represented in the lone state of Tennessee. Come on Southerners — let's hear from you. We can't very well call this column "47" just because you fellows are not handy with cameras. Let's get with it. O.K.?

48



VERMONT

THE COMMUNITY of Brattleboro, though small, boasts at least one car club. The Drag Lynx, in their second year of existence, lays claim to several customs and a rod or two. Member George LaGore's '54 Ford Vic is an example of a "3 stage custom." Already done is the exterior, yet to come are changes beneath the hood and in the interior.

Biggest change in the looks department is the side trim which came originally from a Pontiac, and is used on the Ford to separate the two shades of purple and white. 1963 Olds tail-light lenses are used 'round back with accessory rims. Nosing, decking, lowering and brief grille complete it.

APRIL, 1958



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ODDS 'N' ENDS

continued from p. 56

the junction block for the fuel lines drains by gravity if the fuel pump line is disconnected during repairs. To stop this trouble merely procure a fitting that will plug the opening and use this as a "stopper." If a true "plug" is not available use any fitting of the proper size and thread but fill the orifice with solder.

Occasionally a short stub of water

pipe will remain stubbornly within an engine block when a heater is being removed or replaced. Since a pipe wrench or vise-grip pliers might crush the thin shell outside, avoid using them and try this:

Find a concrete anchor bolt and shell of a size that will barely fit within the pipe. Then place this inside and tighten the bolt until the shell expands enough to grip the inner walls of the pipe firmly. Now remove the entire assembly with pliers or pipe wrench.

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OUR READERS WRITE

(continued from p. 91)

FROM JAPAN

Just a brief note to let you know I'm convinced that R & C's the greatest!

Not long ago, while walking down the street, I caught a glimpse of what looked like a radically reworked Chrysler product. Since customs are almost non-existent in these parts, I was naturally very curious. I never saw the car again until today, when my January issue of R & C arrived. You can imagine my surprise to see the same car featured! You fellows must be telepathic! Keep up the great work. R & C's the best, no matter where you are.

A/2c Herbert Meyers

Japan

WHO'S WINELAND?

Who's Wineland?????

Like WOW!!! He sounds like the original Hiram D. Clod. Who's he to pass judgment on the tastes of other people?

At our last club meeting we were scanning the Jan. R & C and came upon the article on customizing the '58 Chevrolet.

We started to read the story but soon discovered that a Clod article had somehow slipped into your otherwise fine magazine.

We have only one question.

WHO'S WINELAND!!!!!!

The Roaches • Southern California

• To answer your question - I am - Registered Critic No. 3767! To counter with another query, **WHO ARE THE ROACHES?** Perhaps they are a segment of the very group I was referring to - the sheep-like crowd who thoughtlessly confuse quantity with quality. IF - and I despair to think of it - they truly believe that adding every fad item that comes along to their cars rather than adoption of a tasteful few coupled with some original thinking then I sincerely vote that they adopt the accompanying emblem - for, gentlemen - the ROACHES are backward!



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Here's a brand new "out of this world" idea destined to hit the custom world like a bomb! Right now, you can be among the first to give your car the most advanced custom effect of 1958 by replacing your standard tail light lenses with these exciting new SATEL-LITES by Cal Custom!

They come to you in a simple conversion kit consisting of a big red lucite background, two red plastic bullet-lenses, and two decorative chrome-bullets. Bolts for mounting bullets on background (as shown) are included.

No alterations are required - no drilling, no cutting. Lens assembly uses same holes as the original lenses.

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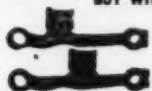
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Watch for our all-new custom specials throughout this, our 40th year. And always look for the California Custom name - your guarantee of the finest and latest in custom accessories.

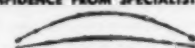
SATEL-LITES will not function as back-up lights. If such signals were built into the original tail lights, they can be retained (if desired) by simply installing a separate back-up light.

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There are many ways to lower the front of your car. You may heat or cut the coils, but if you want the perfect stock ride, the support kit is the only way that does not change the steering geometry. These kits can be installed by anyone with a few hand tools. Instructions are in the kit. Dropped steering arms are priced at \$10.00 per pair. Standard drop is 2 inches but a few may be obtained in a 3 inch drop if desired. All parts sold on exchange basis.



Method of lowering the rear depends on the amount of drop desired. For small drops, block kits do a fine job, but for larger drops the U bolts hang too low and hit the ground. In this case de-arching the springs is best. In de-arching the springs, go down as far as you like and get a stock ride.



The best way to lower your pickup or early model Ford is with a dropped axle in front and de-arching the springs in the rear. Please state year and amount of drop you wish.



We carry a complete stock of Lowering Block Kits for all cars. Each kit contains lowering blocks and four U-bolts. Be very specific as to the year, make, model and the amount of drop desired. Blocks and U-bolts can be obtained individually.

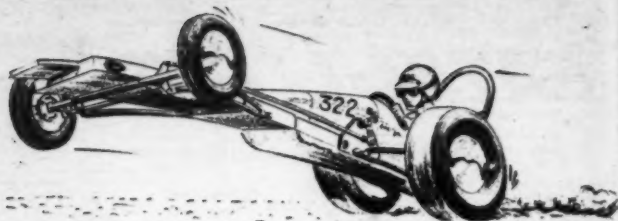


For exceptionally low drop you must "C" frame and tunnel floor so the differential and drive line will have enough clearance. This runs into more work as welding is required. Here are some of our kits.



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HAVE YOU NOTICED that the old hop-up trick of boring and stroking stock blocks is reaching a range of "diminishing returns" on the late big-inch V-8's? It's a basic physical fact that, as stock bores and strokes get bigger, a given increase in these stock dimensions — like, say $\frac{1}{8}$ " — gives a correspondingly smaller *percentage* increase in total piston displacement. Take an example: with a $3\frac{1}{2}$ " bore and $\frac{1}{4}$ " overbore displacement will be increased 7.5%; with a $3\frac{3}{4}$ " stroke a $\frac{1}{4}$ " stroke increase would boost cubic inches by 7.7%. But suppose we start with an original bore of $4\frac{1}{4}$ " and stroke of $3\frac{1}{4}$ ". Then the $\frac{1}{8}$ " overbore will raise displacement by only 6.2% — and the $\frac{1}{4}$ " stroke will get only 6.6% more inches.

So the obvious question: Have the factories increased cylinder wall thickness in the same proportion as the bore diameter — so we can bore proportionately bigger without danger of weakening them? No they haven't. The haven't found thicker walls necessary for adequate rigidity, and of course they can save weight and cost by leaving them as thin as practical. Cylinder walls are very little thicker today than they were with $3\frac{1}{2}$ " bores. Maximum recommended overbores are still $\frac{1}{8}$ ", with $\frac{1}{16}$ in a few cases. And on the matter of stroke increases the situation may be moving *backward*. As the blocks get more compact there is less and less room for the wider crank-rod swing with a lengthened stroke. The new 430 cu. in. Lincoln-Mercury block, with 3.70" stroke and flared con rod shanks, won't even take a $\frac{1}{4}$ " stroke increase without major trimming.

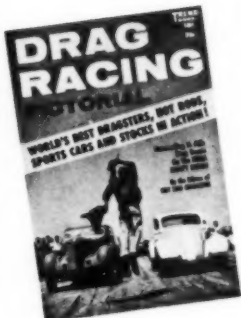
So here we are with 400-cu. in. blocks that we can still only bore and stroke $\frac{1}{8}$ " x $\frac{1}{4}$ ". We stand to pick up maybe 50 cubic inches — for an expenditure on a bore-and-stroker kit of \$400 or so. We used to get 60 to 100 cubes for that money. Is it worth it? A lot of fellows are going to think not. You may see the stroker kit falling out of favor in the future, with more emphasis placed on improved breathing and rpm potential. This could be a good thing. The little Chevrolet V-8 proved that cubic inches aren't everything. It consistently out-performed much bigger engines, merely by winding up and *breathing* up there. (Remember it was the first American passenger car engine that would really do this.) So I'm thinking that a de-emphasis on displacement increases might trigger important developments aimed at getting some other engines to wind — even the biggest ones. After all, what would you rather have: A 400-cu. in. engine that was comfortable and was *pulling* at 5800 rpm, or a 450-incher that was gasping at 5000?? ●

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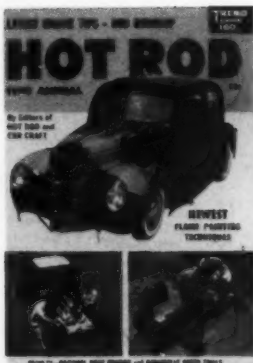
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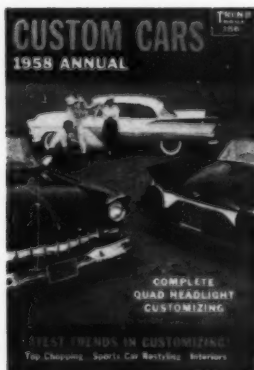
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